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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,098	05/03/2001	Hugo L. Schippmann	1556	5081

7590

09/09/2003

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EXAMINER

GONZALEZ, JULIO C

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 09/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/806,098	Applicant(s) SCHIPPMANN, HUGO L.	
	Examiner Julio C. Gonzalez	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>06/13/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6-9 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyons et al in view of Kikuchi and the IEE Proceedings-C “Role and Objectives of Control for Wind Turbines”.

Lyons discloses a wind energy system having a wind rotor 120, rotor blades 122, and a generator 126 connected to the rotor (see figure 1). Also, part of the system may be shut off depending on the need (column 2, lines 61-67 - column 3, line 1).

However, Lyons does not disclose adjusting the angle of the blades.

On the other hand, Kikuchi discloses for the purpose of preventing the blades of a wind generator to break, a wind rotor (see figure 3), a generator 5 and blades that varied the angle depending on the wind velocity (see abstract).

Moreover, the IEE Proceedings-C “Role and Objectives of Control for Wind Turbines” teaches for the purpose of reducing fatigue damage to the blades and

other components of wind generators that it is well known in the art to operate a wind turbines within 5m/s to 25 m/s (page 136, under Review of pitch regulation, paragraph 2). Also, the proceedings teaches that improvement may be achieved by constant monitoring of the wind turbine (page 136, paragraph 6) and that the “power is maintained at its rated value until a maximum windspeed is reached when the turbine is shutdown (cut-out windspeed)” and by varying the pitch of the blades, “the power derived from the wind is reduced by either partially feathering the blades” (page 136, paragraph 4; see figure 3 in page 136). Also, changing the pitch angle, “influences all the wind induces forces and torques which drive the wind turbine dynamics (page 139, paragraph 2; see also page 140, paragraph 2; page 141, paragraph 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a wind energy system as disclosed by Lyons et al and to modify the invention by varying the angle of the blades for the purpose of preventing the blades of a wind generator to break as disclosed by Kikuchi and to clearly teach that changing the blade angle may decrease the rpm of the rotor for the purpose of reducing fatigue damage to the blades and other components of wind generators as taught in the IEE Proceedings-C “Role and Objectives of Control for Wind Turbines”.

3. Claims 2-4 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyons et al, Kikuchi and the IEE Proceedings-C “Role and Objectives of Control for Wind Turbines” as applied to claims 1 and 9 above, and further in view of DiValentin et al.

The combined wind generator discloses all of the elements above. However the combined wind generator does not disclose implicitly regulating the power above and below a limit of wind speed.

On the other hand, DiValentin et al discloses for the purpose of increasing the efficiency of wind generators, a system in which the wind rotor is controlled above and below a wind speed limit (see claim 3 & abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined wind energy system as disclosed above and to modify the invention by controlling the wind rotor above/below wind speed limits for the purpose of increasing the efficiency of wind generators as disclosed by DiValentin et al.

4. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyons et al, Kikuchi and the IEE Proceedings-C "Role and Objectives of Control for Wind Turbines" as applied to claims 1 and 9 above.

The combined wind generator discloses all of the elements above. However the combined wind generator does not disclose the percentage rated power and wind speed.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use such wind speed and rated power, since it has been held that discovering the optimum value of result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

5. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments filed 04/02/03 have been fully considered but they are not persuasive.

The cited documents in the office action disclose a wind energy system that includes a control system that regulates down to the rotor speed (see Lyons et al,

column 1, lines 15-18 & column 2, lines 50-52, 55, 56, 63-65 & column 3, lines 12-14 and 20). Lyons et al disclose that it is known to shut down turbines of wind generators using a control system depending on wind speed (see abstract of Lyons et al). Moreover, Kikuchi teaches that the blades may be controlled depending on the wind speed (see abstract of Kikuchi). Moreover, Di Valentin et al show that a wind generator may be controlled by decreasingly down the power as the velocity is increased (see graph, figure 2 of DiValentin et al).

Also, the shutoff speed was not clearly defined in the claims or its parameters so as to differentiate from the present invention to the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

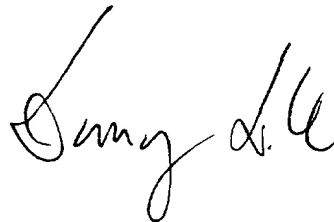
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

August 26, 2003



**DANGLE
PRIMARY EXAMINER**